Department of Pesticide Regulation

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STATUS REPORT FOR FUMIGANT PESTICIDES

August, 2001

I. FUMIGANT DATA REQUIREMENTS

The development of the regulatory programs for 1,3-dichloropropene, methyl bromide, metam sodium, and other fumigant pesticides has documented the necessity of obtaining specific data characterizing the worker and residential exposure, atmospheric partitioning, dispersion, and fate in order to effectively regulate fumigants. Staff are developing a data call-in for existing and anticipated new fumigants using existing authority for the registration and the reevaluation process. This should provide for the quickest means of registering and regulating new fumigant replacements for methyl bromide while protecting workers, the public, and the environment.

II. 2001 SCHEDULED AIR MONITORING

The Air Resources Board (ARB) is conducting air monitoring for methyl bromide, 1,3-dichloropropene, MITC (metam sodium), and chloropicrin during the 2001 pesticide use season. The air monitoring is scheduled for July and August 2001 in Kern County and for September and October 2001 for Monterey and Santa Cruz counties. This monitoring should provide documentation of the impact of additional regulatory measures to mitigate the 2000 air monitoring levels.

Methyl bromide registrants are conducting air monitoring in high use areas of Ventura and Santa Barbara counties in 2001. The air monitoring is being conducted under the protocol and requirements agreed to under the June 26, 2001 reevaluation.

III. ACUTE BUFFER ZONE MODELING

DPR utilizes a standard methodology to calculate buffer zones for acute exposures. Fumigant pesticide registrants and some grower groups have suggested some specific refinements to the current modeling methodology which they believe will improve the procedure and incorporate local information and more representative meteorological conditions. DPR will work with scientists from ARB, industry, and public interest groups to evaluate specific recommendations and consider possible refinements. This project is anticipated to be initiated in September 2001 and completed by January 2002.

IV. METHYL BROMIDE

1. Risk Assessment/Data Evaluation

   - DPR scientists are making final changes to the methyl bromide risk characterization document to incorporate the National Academy of Science peer review comments. The risk characterization document for methyl bromide will be ready for distribution in November 2001.

   - The subchronic management plan will be developed based on the results of 2001 air monitoring studies. DPR anticipates the 2001 monitoring results from the ARB and methyl bromide registrants will be available in the spring 2002. DPR will prepare an analysis of this data and a subchronic management plan by June 2002.

2. Risk Management Status

   - The Environmental Defense Center et al lawsuit and the Ventura County Agricultural Association et al lawsuit have been consolidated and will be heard in San Francisco. Previously, the Ventura County Agricultural Association et al had been filed in Sacramento, California.

   - DPR initiated a reevaluation of methyl bromide products June 26, 2001 because ambient air monitoring data from 2000 exceeded DPR's target exposure levels for seasonal (6 to 8 weeks) exposures. DPR required methyl bromide registrants to conduct ambient air quality monitoring in specific areas to document seasonal exposures during the 2001 high use season. The Camarillo/Oxnard area of Ventura County and the Santa Maria area of Santa Barbara County are to be monitored in 2001. Sampling and analysis are described in a copy of the California Air Resources Board draft "Protocol for the 2001 Ambient Air Monitoring for Methyl Bromide, 1,3-Dichloropropene, Chloropicrin, and Metam Sodium in Kern, Monterey, and Santa Cruz Counties During Summer/Fall 2001" on DPR's Web site at:
     http://www.cdpr.ca.gov/docs/dprdocs/methbrom/mb_main.htm
     under the section entitled "Regulatory Issues."

   - DPR will initiate a public comment period for revisions to the methyl bromide soil fumigation regulations. These revisions regarding roads and the buffer zones and the corrected specifications for shanks on an application rig should be issued in September 2001.

V. 1,3-DICHLOROPROPENE

1. Risk Assessment/Data Evaluation

   - Utilizing local 1,3-dichloropropene use histories to developing future township use caps. DPR and Dow AgroSciences staff are jointly developing strategies to utilize local 1,3-dichloropropene use patterns to develop township-specific caps. Use of local data will allow some relief from the current statewide township use cap by removing some conservative default assumptions. For example, the current statewide cap assumes the worst case where the surrounding townships use are all at the cap limit. Obviously, townships adjacent to the ocean or mountains, or adjacent to townships with little or no use, are misrepresented by this worst-case scenario.

2. Risk Management Status

   - 1,3-dichloropropene recommended permit conditions were revised on August 7, 2001. The revisions standardized maximum application at 332 pounds 1,3-D/acre with and without a tarpaulin. This is compatible with the Department of Food and Agriculture's 1,3-D approved method for nursery stock certification for nematodes.

VI. CHLOROPICRIN

1. Risk Assessment/Data Evaluation

   - Chloropicrin is currently in the risk assessment process.

VII. MITC GENERATING COMPOUNDS

1. Risk Assessment/Data Evaluation

   - The DPR toxic air contaminant risk assessment for MITC is currently in the public comment period which will end August 31, 2001 (http://www.cdpr.ca.gov/docs/empm/pubs/tac/driftmenu.htm). It will then be scheduled for a future Science Review Panel meeting.

2. Risk Management Status

   - The Office of Administrative Law recently approved a regulation package permanently placing metam sodium and other MITC generating chemicals on the

restricted materials. These chemicals are now added as restricted materials in Section 6400.

- A stipulated request for dismissal was approved by the court ending the legal action filed by the Metam SodiumTask Force.

VIII. POTENTIAL NEW FUMIGANTS

- DPR is currently (July 2001) waiting to receive applications for California for products containing methyl iodide and propargyl bromide. Staff have discussed registration requirements and study methodologies with consultants, and have provided published studies and written protocols for guidance. A worker exposure protocol for methyl iodide was approved by the Committee on Human Research at the University of California, San Francisco.

IX. METHYL BROMIDE ALTERNATIVES

- The request for proposals for the Pest Management Alliance Program and the Pest Management Research Program were distributed July 2001. These programs consider proposals for methyl bromide alternatives. For further information, contact Adolf Braun at (916) 324-4247, or by email at <abraun@cdpr.ca.gov>.

- Dr. Jack A. Norton, Manager, IR-4 methyl bromide alternatives (MBA) programs has organized two company-sponsored MBA programs addressing critical needs for California producers of strawberries and fresh market tomatoes as growers face the rapidly approaching phase out of methyl bromide. Trials have been underway in California since the 1999 fall production season in strawberries and since spring 2000 in fresh market tomatoes. Trials are being planned now for strawberries in Ventura and Monterey counties, marking the third year that this program has been in place. Companies are contributing approximately $200,000 per year to have their products evaluated in the IR-4 programs in California and another approximately $150,000 per year for similar programs in Florida.

  Materials being evaluated include experimental chemical fumigants, nonfumigant chemicals, and some biopesticides. A complete listing of the products under evaluation now in strawberries and fresh market tomatoes, and planned for evaluation in the 2001/2001 IR-4 MBA program in strawberries, may be viewed by referring to the IR-4 Web site http://www.cook.rutgers.edu/~ir4. Interested parties may contact Dr. Jack A. Norton at (908) 735-9585 for details. Dr. Mike Nelson of Plant Sciences, Inc., an agricultural consulting and research company in Watsonville, is the principal investigator in California.

- As methyl bromide is phased out, Dr. Norton is also facilitating cooperative research efforts between chemical companies and university researchers in California and Florida to address the critical problems facing other minor crops, such as cut flowers and ornamental bulbs. This research, funded by the U.S. Department of Agriculture's Cooperative State Research Education and Extension Service/Methyl Bromide Transition (USDA-CSREES MTB) competitive grants program, will be conducted by Dr. Clyde Elmore from the University of California, Davis, and Dr. James (Jim) P. Gilreath from the University of Florida in Bradenton. In addition, the California Cut Flower Commission received $20,000 from the U.S. Environmental Protection Agency.

  Field trials in California will be established in Santa Barbara, San Diego, Santa Cruz, and possibly in Monterey counties. Treatments will include, besides the untreated control, the following products: methyl bromide/chloropicrin, iodomethane/chloropicrin, metam sodium + Telone C-35, Telone II + chloropicrin + metam sodium, Telone C-35, Tellone II + chloropicrin + Basamid, and metam sodium.

  Dr. Elmore also plans smaller scale satellite trials in California cut flowers. Several relative new methyl bromide alternative candidates are to be considered in the satellite trials and among them are Propozone (propylene oxide) from Abergo, Seabrook, MD; PlantPro 45 and PlantPro 20EC (iodine compounds) from Ajay North America, Powder Springs, GA; and Multiguard™ FFA (furfural + allyl isothiocyanate) from Harborchem, Cranford, NJ.